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SOCIAL ACCEPTANCE AND PARTICIPATION PATTERNS
OF ACCELERATED CHILDREN IN
MISSOULA, MONTANA

by

MABELLE G. HARDY

B.A., Montana State University, 1938

Presented in partial fulfillment of the
requirements for the degree of

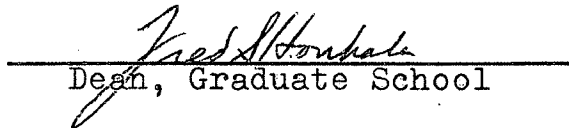
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M.G.H.

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CHAPTER I

INTRODUCTION

"Our crisis is the inadequate use of potentials of talent and leadership among our young people,"¹ was the comment made by Max Lerner in the N.E.A. Journal of October, 1958. Across the United States there had been expressions of shock that, in spite of this country's emphasis on education and scientific research and achievement, Russia had outrun us in the space race. Why were we lagging behind? Something must be lacking in our training of scientists, in our education of those who had ability to achieve on a high intellectual level, in singling out potential leaders so that they might develop their abilities to the optimum. The question was raised, "Do we neglect our gifted children, reducing their education to one of mediocrity in our zeal for making basic learning available to all?" This question gave impetus to many who were concerned with the stature of the United States in world leadership to consider seriously our present educational goals and to reevaluate the points of emphasis in the overall education system with the purpose of making

¹Max Lerner, "American Civilization: Goals and Values," N.E.A. Journal, October, 1958, p. 13.

greater use of the optimum potentials for scientific achievement and leadership ability on the part of young people.

The apparent urgency of this need to assess the accomplishment of our educational system reflected downward from crash training programs in colleges and universities, stepped-up high school science courses, to an effort to do something to lift the intellectually superior elementary school child from a stultifying, rigid academic program.

Educators and lay groups have discussed the pros and cons of identifying at the elementary school age the gifted child, in order to direct additional learning opportunities toward him. Educators recognized that not all children have the same ability to learn long before the lay public was willing to admit the fact. Perhaps this stemmed from a reluctance of a majority of parents in small communities to have a few children singled out as outstanding.

Programs to meet the challenge of the rapid learner include enrichment and acceleration. Enrichment designates making available to the rapid learner projects, literature, and activities to supplement the curriculum so that the quick, eager student may not become bored by the slower pace of the average classroom and drift into lazy, non-productive study habits. Acceleration may be accomplished by the method of skipping a grade, omitting a segment of the normal sequence of progression through grades. The

homogeneous grouping of gifted children so that acceleration can be accomplished as a group has been seen as meeting the challenge of the rapid learner while avoiding the omission of a part of the natural sequence.

Some of the criticisms of any form of acceleration have been that rapid advancement based on demonstration of skill and mental agility deprives the child of a depth of understanding which may develop as subject matter is covered more slowly. It has been claimed that acceleration deprives the child of time to develop creatively, in his involvement with a competitive, rapid achievement program. Stressed by critics of acceleration are the social and emotional factors. The question is often raised as to whether the mentally superior child suffers in his social role by being advanced to compete with chronologically older children.

The attitude of others as an influence affecting the self-image is indicated in Richard Vidibeck's comments concerning "Self-Conception and the Reactions of Others."

The findings of this study tend to support the general view that self-conceptions are learned and that the evaluative reactions of others play a significant part in the learning process.²

Glenn R. Hawkes and Damaris Pease of the Department of Child Development, Iowa State University, report on

²Richard Vidibeck, "Self-Conception and the Reactions of Others," Sociometry, XXIII (December, 1960), p. 359.

their studies:

Analysis of sociometric tests has been most useful in investigating factors thought to be related to social acceptance and interpersonal relationships. Are the brightest children the most or the least popular with their peers? . . . With increasing emphasis on educating the intellectually superior child and the demand for persons with leadership ability in key positions of government and industry, it is important to understand the relationship between intelligence and sociometric status at all stages of development. In general, most research reports low positive correlations between intelligence and peer acceptance.³

Georgia Lightfoot of Columbia University quotes Paul Witty's two-year study of fifty gifted children:

The interests of the children reflect their superiority. Versatility and vitality characterize them. The children engage in the same number of play activities as the control group. . . . The rather superior social adjustment of the gifted child is maintained. They participate generously in school life and receive honors more frequently than the control group at every academic level.⁴

In a study conducted at Hunter College, Gertrude Hildreth concluded, "There was a strong indication that gifted children were quite socially popular."⁵ Glenn Hawkes and Damaris Pease further cite Gallagher and Crowder's conclusions based on sociometric tests that superior

³Glenn R. Hawkes and Damaris Pease, Behavior and Development from 5 to 12 (New York: Harper and Bros., 1962), p. 83.

⁴Georgia Lightfoot, Personality Characteristics of Bright and Dull Children (New York: Bureau of Publications, Teachers College, Columbia University, N.Y., 1951), p. 2.

⁵Gertrude Hildreth, Educating Gifted Children at Hunter College Elementary School (New York: Harpers, 1952).

intelligence and popularity are related.⁶

With the indication that the gifted child may be generally well-accepted among his peers, that peers are valid evaluators of qualities of their classmates, and that a concept of self as defined by social acceptance is a factor in learning, one might question what relationship there is between acceleration as it represents special treatment and social acceptance.

In a preliminary follow-up of more than 1000 gifted children made two years after his first study, Terman et al. (1925) found that the typical educational acceleration was continued and the indications of superior ability appeared consistently in the school and home reports. Gains far outweighed losses in deportment, in group activities, in breadth of interests, and in the social adaptability of the group as a whole. Children who had skipped grades were reported to have gained in application and to be more often eligible for further rapid advancement.⁷

A survey of recent studies conducted on the effects of special education programs for the gifted on social acceptance is contained in a 1961 issue of School Review. The author, Loretta Byers, professor of education at the University of California in Santa Barbara quotes a Horace Mann study of grouping gifted children on a half-day basis:

Mann concluded that grouping heterogeneously for part of the day did not produce the desired mingling among children at various ability levels. Acceptance

⁶Hawkes, op. cit.

⁷Catherine Cox Miles, "Gifted Children," Manual of Child Psychology, edited by Leonard Carmichael (New York: John Wiley and Sons, Inc., 1946), p. 912.

and rejection seemed stronger within an ability group than between groups; grouping did not seem to produce any adverse effects on the personal or the social behavior of the gifted.⁸

Dr. Byers also cites a four-year study of the psychological effects of a special class of elementary school children written up by Edith F. Carlson in the American Journal of Orthopsychiatry in 1945. Dr. Byers quotes this study as follows:

. . . prestige and popularity seemed to parallel enrollment in the gifted class. Children who were in the special class for the entire four years had three times as much chance of being elected to offices in regular classes as children who had been in the program only one year.⁹

Reference is made to a special grouping program in which the fast-learning children in 4th to 8th grades attended special classes for 90-minute periods twice a week. The experimental group was compared to a non-participating control group as to the degree to which they were accepted as friends by their classmates.

At all grade levels, 4-6 and 7-8, it was found that the proportion of children showing an increase in the degree to which they were accepted as friends by their classmates was significantly greater in control group than in experimental groups. . . .

It is concluded that, despite the occurrence of some negative changes, the children's social relationships remained relatively stable.¹⁰

⁸Loretta Byers, "Ability Grouping--A Help or Hindrance to Social and Emotional Growth?" School Review, 69 No. 4, Winter, 1961, p. 450.

⁹Ibid., p. 452.

¹⁰Mary Goldworth, "The Effects of an Elementary

Loretta Byers concludes her survey with comments on the dearth of studies of social and emotional effects of ability grouping. She notes certain findings of these fragmentary studies as having merit.

Partial segregation may enhance the emotional security of some bright students. . . . A halo effect seems to accompany assignment to a class for the gifted; a class system seems to exist in the minds of the children themselves. Are schools that segregate the gifted identifying and accentuating an elect based on ability rather than on demonstrated products or results?¹¹

The foregoing studies notwithstanding, there remain those who question the special education programs and believe they may have a dubious effect on social and emotional growth. Ernest T. Newland speaks for this view as he writes:

Granting for the moment the possibility that special classes and other special services may be 'good' for different kinds of exceptional children, their presence may predispose to conditions which can actually be inimical to such children. Putting them in a special group may contribute to their being alienated socially. The act of putting them in a special group may contribute to their being lost sight of as individuals with unique problem patterns. Providing special services ancillary to the regular class program may contribute to decreasing the teacher's responsibility for children in their classes who are different. Each of these possibilities can become actualities; all of these things have happened somewhere, but no one has to happen; and all can and should be prevented.¹²

School Fast-Learner Program on Children's Social Relationships," Exceptional Children, XXVI (Oct., 1959), pp. 61-62.

¹¹Byers, op. cit., p. 454.

¹²Ernest T. Newland, "Possible 'Side-Effects' of Special Education," Education, LXXX (February, 1960), p. 324.

In an article favoring special education for the gifted Irving Large disagrees with this viewpoint, expressing the opinion that arguments that homogeneous grouping "builds conceit and forms intellectual aristocracy" are built more on "fancy than on fact."¹³

On the subject of snobbism or conceit as an attitude of the gifted in regular classes, Samuel Silverstine concludes:

Intellectually gifted children in regular classes were found to be no more snobbish than the other children in those classes.

Thus it may be normal for all children to be somewhat snobbish. This does not indicate to what extent gifted children may exhibit such a trait when placed in special classes.¹⁴

Finally, in a discussion of another program of special classes for gifted children, one which has been in operation for over thirty years, Walter R. Barbe summarizes the results of 703 questionnaires mailed to graduates between 1938 and 1952 with the statement that the least-liked aspects of the program as indicated by respondents were the lack of social contacts with other people.¹⁵

¹³Irving Large, "Social Gains in the Special Education of the Gifted," School and Society, 79:4-7, January 9, 1954.

¹⁴Samuel Silverstein, "How Snobbish Are the Gifted in Regular Classes?" Exceptional Child, 28:323-324, Feb., 1962.

¹⁵Walter R. Barbe, "Evaluation of Special Classes for Gifted Children," Exceptional Children, XXII (November, 1955), pp. 60-63.

The foregoing references appear to be inconclusive concerning the effects of acceleration on social acceptance. Yet they summarize the results of an extensive search of existing literature concerning studies of this phenomenon in the fields of education, child psychology and sociology.

Much evidence points to the educational desirability of acceleration but relatively little research has been done concerning the social effects of special educational treatment. It appears, then, that more research is needed.

It has been suggested by some that several factors might influence the social acceptance of accelerated children upon returning to regular classrooms. Among them are: Age difference of one year between the accelerated children and their classmates, separation from and later return to home school, possible hostile attitude of classmates toward those who have had special treatment, and superior self-concept of accelerated children resulting from their knowledge of special treatment.

It is equally conceivable that the accelerated children might be given a higher degree of social acceptance based upon (1) peer recognition of superior I.Q. combined with additional educational opportunity, (2) prestige factor related to being one of the 'select,' (3) increased self-confidence because of academic accomplishment, or (4) other contributing factors.

The general question of the relationship between

participation in an accelerated education program and social acceptance by non-accelerated peers might be partially answered by careful examination of the participants in a specific accelerated program. An excellent opportunity to do this was provided by the inauguration of an accelerated program in the Missoula, Montana public school system in 1958. In this program, a selected group of high I.Q. children, who had completed third grade, were enrolled in a special classroom at the fourth-grade level with the purpose of enabling them to complete three grades in two years. Since the children so selected were placed in a special setting for the regular school hours for two years, this meant social interaction with a select peer group during the period. Teachers, participants and non-participating children were aware that the participants were objects of this special treatment. Thus, a natural experimental situation was established.

The Problem

The general problem to be investigated in this research is the relationship between participation in an accelerated education program and social acceptance by non-accelerated peers. The specific focus of study will be participants in such a program conducted in the Missoula city schools during the school years of 1958-60.

Additional information will be obtained by a longitudinal study following these students into high school.

Assessments of social acceptance will be made by the use of sociometric techniques and by comparative participation in elective clubs, offices, sports, and similar activities.

CHAPTER II

THEORETICAL ORIENTATION

Relevant Research

In 1958, Mary G. K. Huffine, a graduate student in sociology at Montana State University, made a study based on a "socio-preferential" questionnaire given to third-grade pupils in the public elementary schools of Missoula School District #1.¹⁶

Mrs. Huffine applied an original questionnaire designed according to a "near-sociometric method" to a sample consisting of 29 boys and 46 girls whose I.Q. scores on the Revised Stanford-Binet scale were 130 or better. These 75 boys and girls were members of a total third-grade population of 390, distributed among 14 classrooms.

Three questions "all of affirmative choice, and cognitively experimental" were used. Choices were realistic but there was assurance given the children that no changes would result from findings.¹⁷

The questions specifically asked each child to designate the classmate (1) he would most like to sit next

¹⁶Mary G. K. Huffine, "We Must Cultivate Our Gardens, A Study of the Gifted Child Among His Peers" (unpublished Master's thesis, Montana State University, Missoula, 1958).

¹⁷Ibid., p. 54.

to; (2) he would most like to invite home to play; (3) would most like to have help plan a picnic for the group; (4) he believed to be the smartest, brightest person in the class; (5) whom he believed most of the other children would name as being the smartest child in the class.¹⁸

Each choice aspect was specifically defined to provide a concrete and realistic choice situation.

Furthermore, each choice preference was aimed at investigating a different aspect of what Cervinka terms 'group-gen,' that is, 'anything that acts as a group generating stimulus.' In this way, data were sought concerning quasi-personal and semi-personal preferences, which referred to the chooser's own system of values (questions 1 and 2), and those involving more formalized activities, which depend on a common-value system, or frame of reference. This latter, more formalized aspect considers the so-called 'goal-directed' activities and those involved in 'socio-criteria.'

Questions 4 and 5 were simply questions of opinion, added to the questionnaire proper to discover what recognition of superior intelligence there might be among the children.¹⁹

Each of the 370 boys and girls was asked to write his choice for each question. Data thus acquired was analyzed by Mrs. Huffine, using Bronfenbrenner's Table of Raw Score Values. A total choice score of 8 or above for the first three questions indicated star status, and 0 choices indicated neglectee status. She found 36.36% of the star group to be the gifted children and 63.64% to be the typical children.²⁰

¹⁸Ibid., p. 116.

¹⁹Ibid., pp. 54-55.

²⁰Ibid., p. 74.

Since 27.87% of the total vote was received by the gifted children, Mrs. Huffine concluded from her findings that there is a higher acceptance of gifted children than of their more typical classmates and that the "Gifted child well accepts his membership within the regular classroom group."²¹ She makes the following recommendation:

There is a definite need for further experiments of psychological and social nature to contribute to the scanty fund of knowledge concerning motivation and social functioning of these children. This knowledge should, in turn, serve to expedite early identification and guidance of these mentally superior individuals. Longitudinal studies, involving guidance, should prove to be of greatest value.²²

At the same time that data was being gathered for the above study, preliminary plans were being made for further research with a sample group selected from the same third-grade population. This study of acceleration in education resulted in Dr. Frances F. Hanson's doctoral dissertation, completed in 1961 in the School of Education of Montana State University.²³ The experiment used fourth, fifth and sixth grades for an accelerated two-year program, beginning September, 1958 and terminating in June, 1960. Dr. Hanson defined the purpose of her research "to evaluate and

²¹Mary G. K. Huffine, Social Status of the Gifted Child, unpublished paper based on M.A. thesis, op. cit.

²²Ibid.

²³Frances F. Hanson, "An Experimental Study of Acceleration and Grouping for Academically Talented Learners in the Elementary School" (unpublished doctoral dissertation, Montana State University, Missoula, 1961).

compare the achievement of two groups of academically talented learners of fourth grade level who have been subjected to an accelerated program for two years."²⁴

Selection of participants was made by first taking the upper 15-20% of the third-grade class of 1957-58 in all schools of District One, Missoula, based on achievement score in the Iowa Tests of Basic Skills, Forms 1 and 2, Verbal, reading comprehension, language, work-study skills, and arithmetical skills.) Recorded I.Q.'s based on scores from Otis Quick-Scoring Mental Ability Tests (Alpha A) were used and 105 were retested with individual Stanford-Binet Intelligence Tests (Form L 1937 revision, short form). Of these 105 Dr. Hanson found 82 3rd-graders with I.Q.'s over 130. Final enrollment in the experimental program was 96, Stanford Binet scores over 120, with written parental permission and agreement to transport the children to the special classrooms, and with the school administration recommendation for participation.

The program was designed with adherence to the school policy of completing textbooks at a given grade level, speeded to six months for completion rather than nine, and with priority given to individual differences. For Dr. Hanson's purpose of studying not only acceleration, but grouping as well, four special classrooms were set up--

²⁴Ibid., p. 5.

two composed of approximately thirty of the selected academically talented children, these classrooms designated as homogeneous. Two were composed of fifteen academically talented children each, the remainder selected at random from available fourth graders in the given school.

The selected children were assigned to special classrooms in one of the two school buildings used by an arbitrary geographic line which divided the 96 selectees into equal groups. Half of the selectees attended School A, north of the line, and half attended School B, south of the line. Division of the selectees into the heterogeneous and homogeneous classes was done by random selection. It is to be noted that participation in the experimental program necessitated the transferring of many students from their home school to another building and being transported to and from a more distant school daily for the two-year duration of the program. Eight children of the original were withdrawn at the end of the first year, chiefly because of the inconvenience of transportation.

Teachers for the experimental classes were selected on the basis of their holding at least a bachelor's degree in education, their interest, and their recognized proficiency as teachers. School District Coordinator was in charge of administering the program with, as mentioned, adherence to the adopted textbook policy of the district plus enrichment by use of community resource people and

periodic parent conferences.

At the end of the experimental two-year program, 77 academically talented children were assigned to the 7th grade in their home schools. In not all cases were the children placed in the 7th grade. A number were assigned to their home school 6th grade at the request of their parents. These parents believed that the children might be socially or educationally immature for 7th grade, in spite of their successful completion of academic requirements.

Dr. Hanson's evaluation of the experimental program, which was terminated in June, 1960, was primarily statistical as to educational accomplishments and secondarily, one of 'opinionaires' and interviews with administrators of School District #1, teachers, and parents of participants. Educationally, the administrators regarded the experiment as successful, though one principal considered moving children from the home school unwise 'even for the experiment.' Four principals were in favor of de-emphasizing acceleration because of "social factors involved."²⁵

A hint that social implications of the program might be less favorable than academic achievements was contained in the comments of guidance personnel:

Careful planning should be made for the return of the selected students to their home district school.

²⁵Hanson, op. cit., p. 116.

There have been verbal expressions of feelings by school personnel against the children involved and against such a program which has pointed up the capabilities of these children.²⁶

Teachers commented:

At first, the loyalty of children to their 'home' school interfered with their adjustment in the new school. Gradually, this attitude diminished as the children became socially integrated within their new surroundings.²⁷

Dr. Hanson's own evaluation is summarized in the following:

In this writer's opinion, the issue of the grouping plan--ungraded, heterogeneous, or homogeneous--is negligible, even from our statistical findings. The individualized education of the small one-room rural school under an able teacher may still become the most significant administrative plan for freeing teachers and learners from the bonds of the grade-level myth in order to teach and to learn in all areas the facts and concepts for which the learner is ready.

As the pole-vaulter accepts no grade-level standard for his skill but ever tries for higher accomplishments, so the learner should be free to receive a continuous stream of knowledge that leads him toward maturity at whatever rate he chooses. Thus, his numerical assignment in school is simply a statement of the years he has attended, i.e., fourth grade meaning of the fourth year of academic placement in the school system.²⁸

Dr. Hanson concludes her evaluation with a recommendation that "emphasis be placed upon continued study of the social relations of all children in the classrooms." She recommends sociometric studies because she feels that "How

²⁶Ibid., p. 124.

²⁷Ibid., p. 193.

²⁸Ibid., p. 199.

the child relates within his social world may have equal significance to, if not more than, his school achievement in terms of living effectively and efficiently within his environment."²⁹

Role Theory

Role theory of socialization as developed by G. H. Mead, C. H. Cooley and others would seem to provide a suitable theoretical framework for studying the relationship between acceleration and social acceptance. "Social roles are the behaviors employed by individuals to satisfy what others expect of them."³⁰ Watson and Tarr further state with regard to children that the peer group provides a source of non-adult approval and success.

On the one hand, the peer group is a field for acquiring and displaying various types of 'prowess.' . . . On the other hand, it is a matter of gaining acceptance from desirable peers as 'belonging' in the group which later ripens into the conception of the popular teenager, the 'right guy.' Thus adult parents are augmented by age-peers as a source of rewards for performance and of security in acceptance.³¹

Mead defines the "generalized other" as the social group which gives an individual his "unity of self" and further says that it is in the generalized other that

²⁹Ibid., p. 199.

³⁰Bruce Watson and William Tarr, The Social Sciences in American Civilization (New York: John Wiley & Sons, Inc., 1964), p. 232.

³¹Ibid.

social process influences the behavior of the individual. He asserts that it is by taking the attitudes of the generalized other toward an individual that systems of common meanings or social meanings become possible.³² A recent summary statement concerning the meaning of role for the individual and society is given by Mangus:

Human conduct is organized and goal-directed. Activities of any given person are organized in terms of the reciprocal activities of other significant persons in his life. These activities are generally channeled in ways that the person perceives to be consistent with his concept of himself in relation to those who participate with him in social situations.³³

The classroom, taken as a social group, presents an opportunity for the child to perform a role which differs from the one he occupies in the narrower social environment of his family. His role performance in relation to the teacher may be similar to the authoritarian relationship of parents. Classmates, however, are a group of peers with whom he interacts as a member of a group, learning group norms and social behavior as the rules of the game. Social acceptance is dependent upon observance of group norms. Status in the group is achieved by doing the things the others do: playing their games acceptably, "fitting in,"

³²H. Laurence Ross, Perspectives on the Social Order, Readings in Sociology (New York: McGraw-Hill Book Co., Inc., 1963), pp. 139-140.

³³A. R. Mangus, "Role Theory and Marriage Counseling," Social Forces, Vol. 35, No. 3 (March, 1957), pp. 200-09.

being one of the gang.

Recognition of superior intelligence by the adults in authority does not necessarily induce high social acceptance by the peer group, nor detract from social acceptance. The child is accepted to the degree that he can fully share in all the activities of the group. Homans' study of the small group in which he substantiates the hypothesis that as "frequency of interaction between two or more persons increases, the degree of their liking for one another will increase and vice versa" is pertinent to the child's role. The child demonstrates his capacity for membership in the classroom group through associating or interacting with his classmates.³⁴

Absence from the group for a period of time, for whatever reason, entails an interruption in the shared experiences. The individual who has been absent and has returned may view his role in relation to the group somewhat differently from before the absence. Specifically in relation to the accelerated child, his own role perception may be affected by the adult recognition of superiority, implying a status accorded this superiority. The typical classmates' view of this status may be tempered by their observation of the accelerated child's capacity for following the group norms. As norms and behavior patterns change

³⁴George C. Homans, The Human Group (New York: Harcourt, Brace and Co., 1950), p. 112.

with age groups, the younger accelerated child may not share in activity interests of typical children, who are a year older.

A further relevant principle based on Homans' study is that "persons who interact with one another frequently are more like one another in their activities than they are like other persons with whom they interact less frequently."³⁵

As the accelerated program affected the frequency of interaction of the accelerated children with their typical classmates in their home schools, it is then possible to formulate the following hypothesis:

Hypothesis I:

The social acceptance of accelerated children by their peers in the groups represented by their home classrooms will differ significantly from the social acceptance of the typical children in these classrooms.

Role Expectation in High School

Within the large group or social system which is the high school there are a number of sub-groups which function as parts of the internal system for social control and as the means of social interaction for the students. Faculty-student relationships may be defined as the faculty functioning in an authoritarian role in relation to the students. In the larger peer group of students the sub-groups of home

³⁵Ibid., p. 135.

rooms, freshman, sophomore, etc. classes and the student association are organized with elected officers whose role is to expedite the internal controls of the peer group. Clubs such as the ski club, chess club, art club, etc. meet many of the needs of teen-agers for group activity. Those sub-groups whose membership is selective give status to the students who are selected.

The student enters high school with the expectation that grades and credits in academic subjects alone do not constitute adequate role performance as a student--that achievement of recognition in some of the group activities is important for a "well-rounded" high school experience. This appears to be particularly true in view of the present competition for college admissions. The "college-bound" student hears frequently that admissions boards scrutinize not only required courses, test ratings, and grade-point averages, but participation in extra-curricular activities as indices of the student's capacity for effective role performance.

To the extent that the accelerated or typical student is oriented toward teen-age tendencies for group activity and toward status within groups, particularly as this may affect future goals of college or job achievement, he may be expected to participate in the existing extra-curricular activities.

Participation patterns may be said to be relevant

to social acceptance in two ways. As the accelerated or typical student perceives himself as an accepted member of the larger group he is able to take part freely in the activities of the various sub-groups. Secondly, as his peers accept him as one of them, extra recognition is given by choosing him, by electing him to offices and to honoraries.

If, according to Hypothesis I of this study, there is a significant difference between the social acceptance of the accelerated children and that of the typical children, then it can be further postulated that there will be a difference in the participation patterns of the accelerated students and typical students in high school. This may be stated as the following hypothesis:

Hypothesis II:

The social acceptance of accelerated children by their peers in high school as indicated by participation patterns will differ significantly from the social acceptance of the typical children in high school.

Sociometric Technique

For several reasons a sociometric technique has been chosen to test the Hypothesis I. First, the study is proposed as a partial replication of the 1958 study made by Mrs. Huffine. Essentially it will consist of the same group of high I.Q. children who were tested sociometrically in 1958. Second, as a method, sociometry can bring out the relationships of attraction and rejection between

individuals. The sociometric technique is an approach by which it is possible to obtain from the school child useful information concerning his opinion of his classmates' strengths, abilities and skills.

Other Techniques to Be Used

As an adjunct to the sociometric instrument, each teacher will be asked to state her guess as to the sociometric choices which will be made by the respondents in her classroom. This inquiry is for the purpose of determining what, if any, relationship exists between the teacher's observation of peer relationships and the responses to the sociometric instrument.

Participation--Activity Questionnaire

A simple questionnaire to which high school students may respond as to their club membership and offices in organizations is the instrument to be used to test Hypothesis II.

Chi-square Means of Analysis

Data compiled from answers to the questionnaire will be subjected to Chi-square means of analysis to test the probability that the observed frequencies are the result of factors other than chance. Chi-square analysis is designed as a mathematical test of a null-hypothesis. It is useful to this research in determining validity. Therefore, for the purpose of the statistical test, Hypothesis II:

The social acceptance of accelerated children by their peers in high school as indicated by participation patterns will differ significantly from the social acceptance of the typical children in high school

is converted to the null hypothesis:

The social acceptance of accelerated children by their peers in high school as indicated by participation patterns will not differ significantly from the social acceptance of the typical children in high school.

Sub-hypotheses

In addition to total participation, the role of the high school student is performed in a number of different social settings of the total school organization. The following sub-hypotheses stated as null hypotheses, for application of Chi-square analysis, are formulated:

1. Membership of accelerated and typical students in voluntary clubs will not differ significantly.
2. Membership of accelerated and typical students in honorary organizations will not differ significantly.
3. Frequency of holding elected offices in small groups by accelerated and typical students will not differ significantly.
4. Frequency of holding elected offices of class or student body by accelerated and typical students will not differ significantly.
5. Frequency of participation in school sponsored sports by accelerated and typical students will not differ significantly.

Definition of Terms

Wherever used in this study, "social acceptance" refers to the degree to which there is evidence that the

individual child is chosen to share in group activities with and by his peers.

"Accelerated" child, student or pupil refers to one who participated in the experimental education program during the school years 1958-60 in Missoula School District #1.

"Typical" child, student or pupil refers to one who did not participate in the experimental program.

"Activity participation" is defined as the student's own statement that he belongs to a school interest, service or honorary club or holds an elective office or engages in a school-sponsored sport.

Limitations

Many of the typical children of the control group may have as high I.Q. and be as "gifted" as the accelerated. From the available data one cannot determine whether it is the high I.Q. or accelerated class participation which is the more important in "causing" certain participation patterns. Therefore, this study is limited to a test of the association between having attended the accelerated class and the participation patterns of the child. There is no intent to demonstrate a cause-effect relationship, although results may be suggestive of such relationships.

CHAPTER III

PROCEDURES

The research proposal was discussed with faculty members of the sociology department of Montana State University concerning appropriate techniques to be applied, and with members of the School of Education concerning the study of the acceleration experiment then being concluded. The administrative officials of the elementary schools and the high school unit concerned were consulted for permission to gather data and for access to essential records. Permission was granted by these officials to use records and facilities available to select the sample and conduct the research. This was accomplished by interview and one meeting with the elementary school principals.

Sample

The list of children participating in the acceleration experiment was obtained and checked with the records in the central administration office of School District #1. Sixty-two accelerated children were found to be enrolled in the thirteen elementary schools. The total classroom population included in the research was 601 sixth and seventh graders--62 accelerated and 539 typical children. Table 1 shows the distribution of children.

TABLE 1
DISTRIBUTION OF ACCELERATED CHILDREN IN HOME SCHOOLS
May, 1961

School	Total in Grade			Number of Accelerated		
	Grade 6	Grade 7	Total	Grade 6	Grade 7	Total
A	27		27	1		1
B		28	28		2	2
C		34	34		2	2
D		24	24		9	9
E	29	28	57	2	6	8
F		29	29		1	1
G	52	50	102	4	9	13
H		24	24		1	1
I	23	29	52	4	3	7
J	34	34	68	1	6	7
K	26	36	62	1	3	4
L	40	23	63	4	1	5
M		31	31		2	2
Total	231	370	601	17	45	62

Sample, High School, 1964

The sample used in June, 1964, was obtained by requesting that the questionnaire be filled in by all students present in Home Room period at the opening of school on June 2nd. The sample thus obtained included 1307 freshman and sophomore students attending the Higgins Avenue unit of Missoula County High School. Comparison of the returns against the list of accelerated children resulted in identifying 51 of the original accelerated group as being among the total 1307. The activity participation questionnaire responses thus included 1256 typical students and 51 accelerated students, a total of 1307.

Techniques--Sociometric, 1961

Evidence of social acceptance at the end of the first school year after accelerated students returned to normal classrooms is to be based upon data obtained by using a "near-sociometric" questionnaire.³⁶

Any study which tries to disclose with less than maximum possible participation of the individuals in the group the feelings which they have in regard to one another is near sociometric.³⁷

In order to relate the social acceptance of the accelerated pupils to that of the same group three years earlier, the sociometric technique which was used in the earlier study has been used. The socio-preferential questionnaire used by Mrs. Huffine required certain modifications to produce an instrument designed to draw comparable data from youngsters now three years older and more sophisticated in their friendship criteria.

Criteria must be meaningful to those making a choice: every individual must be familiar with the choice situation or activity; there should be no limits on the pupils in the group who may be chosen. There should have been sufficient opportunity to become acquainted with each other and assurance must be given that results will be

³⁶See Appendix I.

³⁷J. L. Moreno, M.D., Who Shall Survive (New York: Beacon House, Inc., 1953), p. 94.

confidential.³⁸

Sociometric Instrument

The first step was to revise the questions used by Mrs. Huffine so that they would elicit comparable responses from 7th graders to those which third graders had made. Question one remained the same as in the earlier study--"If you were going to change seating arrangements, which classmate would you most want seated beside you?" The second question asked, "If you could invite one classmate to spend a holiday afternoon with you at your house, whom would you invite," rather than asking whom he would most like to bring home to play. Question 3 was altered, recognizing the 7th grade custom of having school parties rather than picnics. It read "If you were appointed chairman to plan a class party whom would you choose to help you?"

In addition to the opinion, "Whom would you choose as the smartest, brightest classmate?" a fifth question asked, "Whom do you think most of your classmates would choose as being the smartest, brightest, classmate?"

The first two questions, then, were designed to determine preferences based on a personal system of values, the third a more formalized, and the fourth and fifth an opinion as to intelligence, as in the first study.

Norman Gronlund suggests requirements for a good

³⁸Norman E. Gronlund, Sociometry in the Classroom (New York: Harper Brothers, 1959).

sociometric questionnaire (1) choosing criteria meaningful to those to be tested, (2) selecting a choice situation or activity familiar to every individual, (3) placing no limitations on those in the group who may be chosen, (4) allowing sufficient opportunity to become acquainted, (5) assuring that results will be confidential and (6) being adapted to age level of the group. He recommends the classroom teacher as being in the best position to administer the test.³⁹

Letter of Instructions

A form letter was addressed to the teacher who would be administering the sociometric test.⁴⁰ This contained a brief explanation of the purpose of the test, suggestions for introducing it to the children, a request for the teacher's participation, and a note of appreciation for her assistance.

Teachers' Evaluation

The letter addressed to the classroom teachers stated, "You are asked to indicate which three children you think will be most frequently chosen, ranking your estimates, one, two and three in order. Will you do this before giving the test and seal your estimate in the enclosed envelope. Your judgment concerning the choices you think will be of value to this research."

³⁹Ibid.

⁴⁰See Appendix II.

The purpose of this inquiry was to determine the teachers' estimates of the pupils' recognition and acceptance of the accelerated--not of the teachers' own recognition or acceptance.

Administration of Test, 1961

In accordance with these criteria the near-sociometric questionnaire and a letter of instructions for the person to administer the questionnaire were prepared.

Permission was obtained from the superintendent of School District #1 to meet with the school principals to explain the purpose and plan of study. The questionnaire and letter of explanation and instruction directed to the classroom teachers who would give the test were examined by the principals, superintendent, and curriculum coordinator, who were also present at the meeting. The project was approved by this group and consent granted to have the questionnaire given by the teachers on a date set by the principals. Packets were then prepared for distribution, each packet containing a sufficient number of questionnaires for the children in the class and a letter of instruction to the teacher. The questionnaire was given on the same day to all classrooms and packets were returned to the school administration office.

Activity Questionnaire, 1964

A simple questionnaire designed to be filled in by

each student was the instrument used to collect data to test the null hypotheses proposed concerning high school participation patterns.⁴¹ The school unit's social structure was first considered as a frame of reference.

In 1963-64 the Higgins Avenue unit of Missoula County High School comprised grades nine and ten only. All eleventh and twelfth grade students attended the South Avenue unit. Both schools were under the administration of a board of trustees and principal, with a vice-principal and sixty-one member faculty at the Higgins Avenue unit. The wide variety of extra-curricular school activities are conducted with sponsorship and participation and counsel of selected faculty advisers. Membership and participation is elective, limited only when scholarship or other factors are deemed by the school administration to require restriction of individual student's participation.

As a preliminary to designing the questionnaire, extra-curricular activities were sorted into six categories which relate to the major null-hypothesis and the five null sub-hypotheses. (Table IV)

Category I refers to total extra-curricular activities in school, specifically related to the school program. It is recognized that there are youth activities outside school in which some students participate actively, sometimes to the exclusion of school participation. These

⁴¹See Appendix III.

include such organizations as Boy Scouts, Demolay, Y-Teens. In order to insure uniformity and reliability of data, these were not included, and no club was considered a regular school organization unless it was so listed in the high school records or yearbook.⁴²

Category II includes voluntary membership in any of the clubs, organizations, and specific extra-curricular activity a student may select. As stated in the yearbook, "from a noon chess game to a well-rehearsed play, activities appealing to nearly all talents and interests are enjoyed by M.C.H.S. students."⁴³ In the Higgins Avenue unit, participation in debate, extemporaneous speaking, and drama are entirely extra-curricular, not being offered for credit. Music, while carrying limited school credit, may be considered quasi extra-curricular, since it means the student takes band, orchestra, or chorus in addition to his regular courses, thus carrying an "over-load" and foregoing a study period for this purpose.

Category III refers to group membership which is more selective than Category II. To belong to the organizations labeled honorary in Table 2 the student may submit a written statement that he is interested in becoming a member, which is evaluated by faculty members on the basis

⁴²1964 Bitterroot, Missoula County High School, Missoula, Montana, Vol. LVI.

⁴³Ibid.

TABLE 2
CATEGORIES OF ACTIVITIES

-
-
- I. Total Voluntary Participation in Activities
 - II. Voluntary Membership in Clubs and Activities
 - A. Future Farmers of America, Future Teachers of America, Future Homemakers of America, Future Nurses' Association, Library Club, Modern Language Club, Science Club, Speech, National Forensics League, Math Club, Trades and Industries Club, Girls Recreation Association Usherettes, Intramural Basketball.
 - B. Music--Orchestra, Band, Chorus
 - C. Bitterroot Staff, Kopee Staff
 - III. Membership Based on Selection by Student and Faculty Vote--Honorary Organizations
 - A. Pep Club
 - B. Key Club
 - C. Orchesis
 - D. Girls' Club Executive Board
 - IV. Offices Selected by Small Group Election
 - A. Home room president and secretary
 - B. Student Council representatives
 - C. Girls' Club contact representatives
 - D. Class Council representatives
 - V. School-wide or Class-wide Elective Offices
 - A. Student body president, vice president, secretary, treasurer
 - B. Class president, vice president, secretary, treasurer
 - C. Girls' Club president, vice president, secretary, treasurer
 - VI. Sports
-

of academic record and personality qualities as a basis for eligibility for membership. Selection is made by primary ballot by the student body, followed by final selection by members of the particular organization, voting on the list of finalists. Thus, this category represents recognition by the student's peer group of specific qualities of leadership, service and popularity.

Key Club is a service organization sponsored by Kiwanis and is open only to boys. Membership carries prestige, but emphasis is on responsibility for school and community service. Pep Club is, as the name indicates, a group to promote school support of athletic events, and is open to both sexes. Orchesis is a chapter of National Modern Dance honorary for girls and is also an organization in which membership carries an element of prestige, but in this group some ability and talent in dancing are prerequisites. Girls' Club Executive Board is the nucleus of the Girls' Club to which all high school automatically belong. It can be said that the degree of participation is not so diverse in this category since the student must participate actively as defined by the organization in order to remain a member.

Category IV lists elective offices of small groups. This includes all offices held in clubs of the first and second category as well as home room offices. Each home room elects a president, student council representative,

Girls' Club contact representative, and class council representative. These selections are made by majority vote in a group of thirty to thirty-five students. Offices in other organizations may involve larger or smaller groups, but for this study such offices involve comparable evaluation by the peer group in choices which are made.

Category V refers to the most selective offices--those dependent upon school-wide or class-wide election. These include student body president, vice president, secretary and treasurer; these four offices for sophomore and freshman classes and for the Girls' Club. Candidates for these offices are screened by the faculty for academic and personality qualifications and submit to primary election and final election by the class or student body.

Category VI designates interest in school-sponsored competitive sports. A statement of participation by a student may mean merely that he or she has "signed up" for the sport and attended occasional practices. More school-sponsored sports seem available for boys than for girls--football, basketball, wrestling, for example. Tennis, golf, and swimming are the principal sports in which girls as well as boys may represent the school.

Each respondent was asked to enter his name and to circle his class, whether a freshman or sophomore. These two items were for the purpose of identifying and extracting the accelerated from the typical and of separating the

first year or freshman students from second year or sophomore.

Second, each respondent was asked to list the high school clubs or organizations to which he belongs. Membership in voluntary organizations ranges from nominal affiliation to active participation and to leadership in the group. No attempt was made to determine from responses the degree of participation. Indication of membership was accepted as evidence of interest and acceptance by peers.

Third, each respondent was asked to list the elective offices he or she held, or had held in clubs, home room, class or student body.

Fourth, the respondent was asked if he or she participated in a school-sponsored sport and to specify what ones. The question was not designed to learn the degree of participation although it is recognized that this ranges from a nominal expression of interest to team membership and, in some cases, star performance.

Administration of Questionnaire

The principal of the Higgins Avenue High School unit set June 2nd as a date for distributing the questionnaires to students at their home room period. It was felt that no cover letter was required and that the questionnaire was self-explanatory. They were distributed in packets to each home room, filled in by the students who were present on June 2nd and collected and returned in packets to the

school office.

Analysis: Sociometric Data

Data was recorded on a separate tally sheet for each classroom. Choices of each class member were recorded for each question. Questions one, two, and three comprise the sociometric test, and choices for these were totaled separately from choices for questions four and five, which refer to recognition of superior intelligence. The data was then analyzed, using Bronfenbrenner's Table of Raw Score Values.⁴⁴ A choice of 8 or more for the first three questions indicated star status, and 0 choices indicated neglectee status. Stars and neglectees thus identified were tabulated as to typical and accelerated children.

The highest number of choices assigned to questions four and five (opinion of intelligence) in each classroom was also tabulated, noting the incidence of this being awarded to an accelerated child.*

The teachers' responses were analyzed for their co-incidence with pupil choices.

*A final summary of data was made, totalling the number responding, the total number of choices made, total typical and accelerated stars and neglectees and choices given to the "smartest."

⁴⁴Urie Bronfenbrenner, The Measurement of Sociometric Status, Structure and Development (New York: Beacon House, 1945), p. 71.

Analysis: Activities Data

The questionnaires were checked with the list of accelerated children, sorted into two groups--accelerated and typical--and responses counted for each of the six categories. Percentages of accelerated and typical responding in each category were figured.

Chi-square Analysis

The Chi-square test was applied to data in each of the categories to determine the significance of the differences between frequencies in the two groups--accelerated and typical.

CHAPTER IV

FINDINGS

A detailed compilation of the sociometric data is presented in Table 3, which shows both typical and accelerated stars and neglectees in each classroom. Stars are those who received 8 or more choices in responses to the first three questions. Neglectees are those who were given no choices to any of the questions.

Five (5) of the 46 (10.8%) stars were accelerated children, and 13 of the 108 (12.04%) neglectees were accelerated. Only two accelerated children were chosen as being the "smartest" in their room.

Responses to question 4 indicate the child receiving the greatest number of choices as being the "smartest." Choices for question 5 refer to the opinion as to the one whom most of the classmates might choose as the "smartest." Crude comparison of the choices for question 4 and question 5 indicate a degree of correlation between the two responses--some consensus in the peer group in relation to recognition of superior intelligence.

The low incidence of two accelerated pupils in this group does not necessarily indicate their being unrecognized. It must be kept in mind that among the typical children studied as a part of the total population there

TABLE 3
DISTRIBUTION OF SOCIOMETRIC CHOICES

Class- room	Total Choices	No. of Respondents			Stars*		
		Typ.	Acc.	Total	Typ.	Acc.	Total
A6	133	26	1	27	3		3
B7	140	26	2	28	3		3
C7	167	32	2	34	2		2
D7	120	15	9	24	1		1
E6	142	27	2	29	1	1	2
E7	130	22	6	28	2		2
F7	144	28	1	29	4		4
G6	130	24	2	26	2		2
G6	130	24	2	26	1	1	2
G7	100	18	6	24	2		2
G7	125	23	3	26	1	1	2
H7	109	23	1	24	1		1
I6	115	19	4	23	1		1
I7	140	26	3	29	3		3
J6	170	33	1	34	2		2
J7	170	28	6	34	1	1	2
K6	130	25	1	26	1		1
K7	180	33	3	36	2	1	3
L6-7	95	16	3	19	1		1
L6	105	20	1	21	2	0	2
L7	154	22	1	23	3		3
M7	154	29	2	31	3		3
Total	2933	539	62	601	41	5	46

*Over 8 choices

TABLE 3 (continued)

Class- room	Neglectees**			Choices		
	Typ.	Acc.	Total	Q. 4	Q. 5	Total
A6	6		6	19	21	40
B7	5		5	15	18	33
C7	5		5	6	9	15
D7		4	4	15	14	29
E6	7		7	9	14	23
E7	3	2	5	11	12	23
F7	9		9	16	13	29
G6	6		6	20	23	43
G6	3		3	9	10	19
G7	3	2	5	20	23	43***
G7	4	1	5	(5	6	11
				(8	3	11
H7	2	1	3	12	16	28
I6	4		4	17	17	34***
I7	5		5	15	22	37
J6	4		4	(4	7	11
				(5	6	11
J7	3	1	4	11	11	22
K6	2		2	14	17	31
K7	8	1	9	21	26	47
L6-7	3		3	8	12	20
L6	4		4	8	7	15
L7	3		3	13	16	29
M7	6	1	7	11	15	26
Total	95	13	108	292	338	630

**No choices

***Accelerated child

are high I.Q. children who were not participants in the accelerated program because they were a year ahead of the accelerated children in school when the selection for the program was made in 1958.

The 1958 study found the gifted children receiving 27.87% of the total vote, thus accepted socially in excess of their typical classmates to this extent.⁴⁵ The 10.6% shown in Table 4 indicates a decline in total acceptance and recognition of superior intelligence.

TABLE 4
INCIDENCE OF CHOICES GIVEN ACCELERATED

N	n ¹	%	N	n ²	%
2933	159	5.75	2933	311	10.6

N - Total choices

n¹- Sociometric choices given accelerated

n²- Total choices given accelerated

Several factors may be relevant to this apparent decline in social acceptance. Those accelerated children who were in the 7th grade were chronologically a year younger than their typical classmates. At the 7th grade level, emotional maturity may be a factor in social role. The younger child may not be interested in participating

⁴⁵Mary G. K. Huffine, Social Status of the Gifted Child, unpublished paper based on M.A. thesis, op. cit.

in the same social activities as the older children, particularly the boy-girl dancing parties and socials which are a part of the 7th and 8th grade recreation programs at school and informal home gatherings. They may also, because of growth patterns, be eliminated from athletic competition which is a more emphasized part of 7th and 8th grades than the earlier grades. It is possible, too, that negative attitudes of fellow students toward the accelerated children existed as a result of their having been selected for special attention. Misgivings of the teachers about the acceleration program may have been reflected in their attitudes toward and acceptance of the accelerated children. Teachers' attitudes may to a degree have been reflected by attitudes of the accelerated children's peer group.

The disparity between 10.6% choices in 1961 and 27.87% in 1958 indicates some factor or combination of factors related to social acceptance of the accelerated children.

More explicit comparison of findings of the 1958 study and this research is to be found in Tables 5 and 6. In 1961, 8.06% of the accelerated group were found to be stars, as compared with 16% of the gifted group in 1958. In the typical group of children, a slight difference between 7.51% stars in 1961 and 6.67% in 1958 is noted.⁴⁶

⁴⁶Mary G. K. Huffine, "We Must Cultivate Our

TABLE 5
INCIDENCE OF STARS WITHIN ACCELERATED
AND TYPICAL GROUPS

	<u>Accelerated</u>			<u>Typical</u>		
	<u>N</u>	<u>n</u>	<u>%</u>	<u>N</u>	<u>n</u>	<u>%</u>
1961	62	5	8.06	539	41	7.51
	<u>Gifted</u>			<u>Typical</u>		
	<u>N</u>	<u>n</u>	<u>%</u>	<u>N</u>	<u>n</u>	<u>%</u>
1958	75	12	16.00	315	21	6.67 ⁴⁷

TABLE 6
INCIDENCE OF NEGLECTEES WITHIN ACCELERATED
AND TYPICAL GROUPS

	<u>Accelerated</u>			<u>Typical</u>		
	<u>N</u>	<u>n</u>	<u>%</u>	<u>N</u>	<u>n</u>	<u>%</u>
1961	62	13	20.97	539	95	17.62
	<u>Gifted</u>			<u>Typical</u>		
	<u>N</u>	<u>n</u>	<u>%</u>	<u>N</u>	<u>n</u>	<u>%</u>
1958	75	15	20.00	315	78	24.76 ⁴⁸

Gardens, A Study of the Gifted Child Among His Peers"
(unpublished Master's thesis, Montana State University,
1958), p. 76.

⁴⁷Ibid., p. 76.

⁴⁸Ibid., p. 77.

A very slight difference in the incidence of neglectees in the accelerated children in 1961 and the gifted in 1958 is noted. Incidence of neglectees among the typical children shows a sharp decline from 24.76% in 1958 to 17.62% in 1961. This decline may be viewed in the light of the presence among the typical children studied in this research of an unknown percentage of high I.Q. children who were non-participants in the accelerated program. Crediting Mrs. Huffine's findings that gifted children were accepted socially in excess of their classmates, then a possible relationship exists between the presence in the typical group of the high I.Q. children and the decline of neglectees in that group, while the incidence of neglectees in the accelerated and gifted remains the same.

Teachers' Responses

Review of the responses made by the teachers to the request, "You are asked to indicate which three children you think will be most frequently chosen, ranking your estimates as one, two and three in order," revealed a variation in interpretation of instructions. Eight listed their estimates of 1st, 2nd and 3rd choices for each question. Twelve listed their estimates of the children who would receive 1st, 2nd and 3rd choices. One teacher did not respond. One listed her choices for boys and for girls separately, stating that her experience with this age group was that such choices were made within the

respondent's sex.

This variation in responses indicates that the instructions were not explicit, they contained ambiguities. However, 13 of the 21 teachers' responses included stars in their list of those they expected to be chosen and 12 of those chosen as of superior intelligence were included in the teacher's forecasts. The contribution of the teachers' responses to the significance of this study must be considered negligible because of the inconsistencies contained in responses.

Results of Activity Questionnaires

The total responses to the questionnaires are summarized in Table 7. Figures in this table represent the results obtained by counting the responses to each question according to the category to which the organization or club had been assigned. (See Table 2.)

TABLE 7
ACCELERATED AND TYPICAL STUDENT PARTICIPATION
IN ACTIVITIES

	Accelerated	Typical
I. Voluntary Participation in Activities	38	630
II. Voluntary Membership in Clubs	23	363
III. Membership in Honorary Clubs	7	81
IV. Minor Offices	17	286
V. Class and Student Assoc. Offices	3	33
VI. Sports	12	189

Total Accelerated Responses - 51
Total Typical Responses - 1256

The total enrollment in the original acceleration program was 96; there were 62 participants accounted for in 1961 in the Missoula elementary schools, and it is noted that 51 accelerated students remain in the extension of this research to high school.

The null hypothesis concerning the relationship between total participation in extra-curricular school activities and acceleration states:

The social acceptance of accelerated children by peers in high school as indicated by participation patterns will not differ significantly from social acceptance of the typical children.

There has been evidence in previous research that acceleration as an educational method of furthering the

potentials of the high I.Q. student does not affect detrimentally the student's role in non-academic activities. It has been suggested that challenging the child of superior intellectual ability may result in enhanced role performance in his social interaction. It might, therefore, be assumed that the accelerated children would participate in activities other than academic to a greater degree than their typical classmates.

Table 8 shows the results of the Chi-square test applied to data gathered on the activity questionnaire. The observed frequencies can be accounted for by chance less than one time in a hundred; therefore the null hypothesis must be rejected.

Rejection of the null hypothesis means, then, that the accelerated students' total participation in activities is significantly greater than that of typical students. This finding, supports the proposition that acceleration of the academic program may result in an enhanced role performance in social interaction. It appears from these findings that the accelerated students as a group assumed a more active role in the total array of extra-curricular activities than the typical students. One may speculate that these accelerated students view themselves as being in a position to contribute to and gain from all phases of social experience as represented by the school activities. Recognition and acceptance of them by their peer group is

also indicated by these results.

TABLE 8
TOTAL ACTIVITY PARTICIPATION

	Some	None	Total
Typical	630	626	1256
Accelerated	38	13	51
Total	668	639	1307

$$(x^2 = 11.763; P < .01).$$

The null hypothesis concerning the relationship between membership in voluntary clubs and organizations and acceleration states:

Membership of accelerated and typical students in voluntary clubs will not differ significantly.

Table 9 shows the results of Chi-square test applied to data tabulated from the activity questionnaire. The observed frequencies can be accounted for by chance less than two times in a hundred; therefore the null hypothesis must be rejected.

Accelerated students' membership in voluntary organizations has been found to be significantly greater than the membership of typical students. Percentages of membership shown in Table 14 show 45% of the accelerated group and 28.9% of the typical group as members of voluntary organizations. This category includes the instrumental and

choral music programs as well as membership in elective clubs related to academic subjects--science, mathematics, modern language, speech, and those related to vocational courses such as Future Teachers of America. The significantly greater participation by the accelerated students may be an indication that they project their interest in the subject matter of school beyond the classroom to related clubs and informal study groups. Thus, the accelerated students may be said to coordinate their studies and social activities to a greater extent than do the typical students.

TABLE 9

MEMBERSHIP IN VOLUNTARY CLUBS AND ORGANIZATIONS

	Membership	Non- membership	Total
Typical	363	893	1256
Accelerated	23	28	51
	386	921	1307

($\chi^2 = 5.879$; $P < .02$).

The null hypothesis concerning the relationship between membership in honorary organizations and acceleration states:

Membership of accelerated and typical students in honorary organizations will not differ significantly.

Table 10 shows the results of the application of the

Chi-square test to the data. The observed frequencies can be accounted for by chance less than two times in a hundred; therefore the null hypothesis must be rejected.

A significant difference has been found in membership in honorary organizations between the two groups. As Table 14 shows, 13.7% of the accelerated students and 6.4% of the typical students belong to honorary organizations. This difference tends to show a higher degree of recognition and acceptance of the accelerated students by their peers and superiors, since membership is dependent upon the favorable recommendation of both peers and superiors.

TABLE 10
MEMBERSHIP IN HONORARY ORGANIZATIONS

	Membership	Non- membership	Total
Typical	81	1175	1256
Accelerated	7	44	51
Total	88	1219	1307

($x^2 = 5.652$; $P < .02$).

The null hypothesis concerning the relationship between being elected to offices in or by small clubs states:

Frequency of holding elected offices in small groups by accelerated and typical students will not differ significantly.

Table 11 shows the results of the Chi-square test applied to data tabulated from the activity questionnaire. The observed frequencies can be accounted for by chance less than five times in a hundred; therefore the null hypothesis is rejected.

Rejection of the null hypothesis indicates a significant difference between the frequencies of holding elective offices in small groups by accelerated and typical students. Table 14 shows 33.3% accelerated and 22.7% typical students holding these offices. This indicates a greater acceptance of the accelerated as represented by popular vote in small groups. A greater willingness of the accelerated students to assume roles of responsibility and a corollary acceptance of them as capable of doing so may be deduced from these findings.

TABLE 11
ELECTIVE OFFICES OF SMALL GROUPS

	Some	None	Total
Typical	286	970	1256
Accelerated	17	34	51
Total	303	1004	1307

$$(x^2 = 4.005; P < .05).$$

The null hypothesis concerning the relationship between holding elective offices of class or student association states:

Frequency of holding elected offices of class or student body by accelerated and typical students will not differ significantly.

Table 12 shows the results of applying the Chi-square test to the data in this category. The observed frequencies can be accounted for by chance less than five times in a hundred; therefore the null hypothesis is rejected.

Here again is found a significant difference between the accelerated and typical students. The percentages of "important" class and student body offices as shown in Table 14 are 5.8% of the accelerated and 2.6% of the typical students. The same interpretation may apply to these findings as to those for offices of small groups. An additional comment may be in order to the effect that the pattern of greater acceptance by peers as expressed through popular vote is sustained from honorary memberships through small group offices on to the most selective offices.

TABLE 12

ELECTIVE OFFICES OF CLASS OR STUDENT BODY			
	Some	None	Total
Typical	33	1223	1256
Accelerated	3	48	51
Total	36	1271	1307

($\chi^2 = 4.056$; $P < .05$).

The null hypothesis concerning the relationship between participation in school sports and acceleration

states:

Frequency of participation in school-sponsored sports by accelerated and typical students will not differ significantly.

Table 13 shows the results of applying the Chi-square test to data contained in responses to the last question in the activity questionnaire. The observed frequencies can be accounted for by chance more than ten times in a hundred; therefore the null hypothesis cannot be rejected.

There appears to be no significant difference between the participation in sports by the accelerated and the typical students. This is the only category in which no significance exists in the frequencies. A greater percentage of accelerated (23.5%) indicated sports participation as compared to 15.0% of the typical students. This may partially substantiate the notion that academic excellence and participation in athletics are frequently not highly associated.

TABLE 13

PARTICIPATION IN SCHOOL-SPONSORED SPORTS

	Some	None	Total
Typical	189	1067	1256
Accelerated	12	39	51
Total	201	1106	1307

$$(x^2 = 2.451; P > .10).$$

The activity questionnaire asked only for an indication by the respondent of participation in a school-sponsored sport and designation of which sport. Observation and student comment would seem to indicate that it is not unusual for students to "sign up" for a sport such as wrestling and to "turn out" a few times and then to drop. Some discover they cannot compete successfully in the sport, others have schedule conflicts, and others are discouraged by training requirements, temporary illnesses or lack of motivation. Respondents to the questionnaire were freshmen and sophomores, few of whom had achieved sufficient prowess for recognition in any of the sports which the school emphasizes. The inquiry concerning sports participation may therefore be regarded as less significant than the other categories.

Percentages of participation are shown in Table 14. A substantially higher percentage of participation by accelerated than typical students is observed in all categories. As a group the accelerated students demonstrate, according to these percentages, a greater interest in extra-curricular activities, broader patterns of participation and acceptance by peers where selection for activities is a factor, than the typical students do as a group.

TABLE 14
PERCENTAGES OF ACTIVITY PARTICIPATION

	Accelerated	Typical
I. All Activities	74.5%	50.1%
II. Voluntary Clubs	45.0%	28.9%
III. Honorary Organizations	13.7%	6.4%
IV. Minor Offices	33.3%	22.7%
V. Class and Student Body Offices	5.8%	2.6%
VI. Sports	23.5%	15.0%

Comparison of Sociometric Results and Participation Patterns

A direct comparison between the results of Mrs. Huffine's sociometric inquiry of 1958, the sociometric findings in 1961 and the participation patterns as they appeared in 1964 is impossible. Neither the identical sample nor identical procedure and techniques have been used.

The sample to which sociometric techniques were applied in 1961 was sufficiently similar to the 1958 sample that comparison may be considered meaningful. This comparison, as already stated, indicates a decline in the total vote from 27.87% for the gifted to 10.6% for the accelerated. Percentage of stars in the gifted group in 1958 was 16.00 and of stars in the accelerated in 1961 was 8.06. Application of the activity questionnaire to the same sample resulted in a reversal of these findings in 1964 and

significant evidence that social acceptance of the accelerated children was higher than that of the typical children.

CHAPTER V

SUMMARY AND CONCLUSIONS

The Problem

The general problem investigated in this research was the relationship between participation in an accelerated education program and social acceptance by non-accelerated peers. The specific focus of the study was a group selected to participate in such a program conducted in the Missoula city schools during the school years 1958-60. Assessments of social acceptance were made by the use of sociometric techniques and a longitudinal study following these students into high school, comparing participation in elective clubs, school offices, honorary organizations and sports.

Summary of Research

Theory

Role theory of socialization was considered a suitable theoretical framework for studying the relationship between acceleration and social acceptance, inasmuch as the classroom, taken as a social group, presents an opportunity for the child to perform a role which differs from the one he occupies in his family. Of particular relevance was the peer relationship in which the child interacts as a member

of a group, observing group norms and social behavior. The findings of George C. Homans concerning the relationship between frequency of interaction among two or more persons and their mutual attraction for one another provided a further theoretical basis for this research. To the extent that the accelerated program affected the frequency of interaction of the accelerated children with their typical classmates in their home schools, the following hypothesis was formulated:

The social acceptance of accelerated children by their peers in the groups represented by their home classrooms will differ significantly from the social acceptance of the typical children in these classrooms.

The research was designed as a longitudinal study to test the major hypothesis: first, soon after termination of the accelerated program and second, three years later as the accelerated children were in high school, the majority of them second-year high school students. The first phase of the research was based on a modification of the sociometric device used in a 1958 pre-acceleration study of the same children. The second phase was directed toward the assessment of participation in school activities to measure social acceptance. Assumptions underlying this approach were that to the extent that the accelerated or typical student is oriented toward teen-age tendencies for group activity and toward status within groups, he may be expected to participate in the existing extra-curricular

activities. The second hypothesis states:

The social acceptance of accelerated children by their peers in high school as indicated by participation patterns will differ significantly from the social acceptance of the typical children in high school.

Methodology

The near-sociometric questionnaire used by Mrs. Huffine in the 1958 study was modified to allow for the greater sophistication of the seventh grader than the third grade child. This questionnaire was responded to by 601 children, 62 of whom were accelerated. As supplementary evidence, teachers of each classroom were asked to express their opinion as to the member of their class who would receive the greatest number of choices in response to each question.

Responses were tabulated and analyzed, using Bronfenbrenner's Table of Raw Score Values with 8 or more sociometric choices indicating a star and 0 choices a neglectee. The greatest number of choices in response to the two questions asking opinion of superior intelligence were noted for each classroom. The incidence of sociometric stars and neglectees among accelerated and typical children was computed. These were compared with the findings of the 1958 study. Responses of teachers were analyzed for their correlation to the consensus of choices expressed in classroom responses.

A simple questionnaire designed to be filled in by

each student was the instrument used to collect data for the second phase of this research. Responses by typical and by accelerated children to the questionnaire were counted as they related to each of the six categories set up in relation to the major hypothesis and five sub-hypotheses. Percentages of responses by accelerated and typical students in each category were computed. Chi-square analysis was applied to the data to determine the significance of differences between frequencies in the two groups.

Findings

The 10.6% total vote awarded to the accelerated children in 1961 assessed in relation to 27.87% in 1958, and the incidence of 8.06% stars in the accelerated group of 62 children compared to 16.00% among the 75 gifted in 1958 indicate a marked decline in the social acceptance of these children. Relating this conclusion to the hypothesis of the study that the social acceptance of accelerated children by their peers in the groups represented by their home classrooms will differ significantly from the social acceptance of the typical children in these classrooms, it may be concluded that a difference exists, but the difference is not favorable toward acceleration.

Analysis of activity participation revealed a much higher percentage of participation in all school activities by the accelerated students than by typical students.

Application of the Chi-square test for significance of differences between frequencies of participation by accelerated and typical students indicated that in all categories except sports differences might be accounted for by factors other than chance. In voluntary and honorary club membership, small group, class and student association office holding, and total participation, a significant relationship between acceleration and participation was found to exist.

Relation to Findings to Theory

In the light of concepts of role performance and the concept of self one might interpret the decline in social acceptance indicated by the sociometric study as related to the interruption of interaction between accelerated children and their typical classmates. Although the accelerated children had returned to be members of their home classrooms for an entire school year before the second sociometric study, there is the possibility that this was not an adequate length of time for resumption of their role in the peer group. Chronological age differences, emotional maturity, attitudes of teachers toward assimilating these children in the classrooms may be contributing factors in the decline of role performance.

Several factors which were not included in this study may specifically relate to its significance. First,

information concerning the ratio of high I.Q. children in the typical group under study was not a part of the research. The 7th grade typical children represent a population within which a sample of high I.Q. children comparable to the accelerated children may be assumed to exist. Application of Mrs. Huffine's conclusion that there is a higher acceptance of gifted children than of their more 'typical' classmates may be considered relative to this assumption. The 7th grade classrooms were probably comprised of high I.Q. children with: (1) concomitant high role expectation, (2) one year chronological seniority over the accelerated, and (3) continuity of social interaction with their classmates. Distortion of sociometric results might be accounted for to some extent by this factor.

Another factor was the observed tendency of responses to individual sociometric questions to follow the pattern of cliques and friendships as well as sex--boys choosing boys, girls choosing girls, best friends choosing best friends. A pre-test and more careful design of the sociometric instrument might have helped control this factor.

In an effort to replicate the earlier study as closely as possible the sociometric questions used for the 3rd graders were revised to fit the typical social experiences of 7th graders. However, it is quite possible that despite this revision the sociometric technique was less reliable for the 7th graders than it had been for the 3rd

graders. Although this possibility remains a matter of conjecture it does invite caution in placing too much emphasis upon measured differences of social acceptance between 3rd and 7th grade accelerated students.

Participation by high school students in existing extra-curricular activities has been discussed in terms of its relationship to role expectation in high school. The role of the high I.Q., 'college-bound' student in high school has been suggested as including active membership and leadership in the school's non-academic offerings. The results of this inquiry into the participation patterns of the accelerated students were in accord with this theory. A significant difference was found to exist between accelerated and typical students in activity participation. As this higher percentage of participation may be viewed an indicator of a higher social acceptance by peers and role expectation by the accelerated, a reversal of the 7th grade sociometric findings is observed. The general theory of role expectation as expressed in the major hypothesis that social acceptance of accelerated children will differ significantly from that of typical children is supported with favorable implications for programs of acceleration.

One might speculate that the factors in the accelerated experience which are related to the greater social acceptance were not effective immediately following the experience, but in the subsequent three-year period the

accelerated students assumed a significantly more active role in their peer group relations than the typical students.

There was no intent in this research to establish a cause-effect relationship between acceleration and social acceptance. However, it is felt that the findings, specifically in participation patterns, indicate a positive relationship between the two. Certainly the existence of positive gains in social relationships for participants as a result of the accelerated program was not contradicted by the results.

Suggestions for Further Research

Several areas of consideration are open for further study which might support the findings of this research. An area which was regrettably omitted from this study, but which might have shed light on the sociometric findings, is interviews with participants, their parents, and teachers. Such interviews might reveal attitudes toward the program which would interpret or define the accelerated child's concept of his role as a participant as well as the adult concept of his role.

A study of scholastic achievement by examination of school records of gradepoint averages and standard test scores in high school would be a second area in which further research might be done.

The accelerated program used for this research was designed primarily as an experimental study in education. If a parallel study of social relationships were designed to be carried on in conjunction with such an experimental project, the findings might shed additional light upon the proposition that talent and leadership potentials of our young people are not being adequately used.

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APPENDIX I

Name _____

Age _____

Sex _____

1. If we were going to change seating arrangements, which classmate would you most want to be seated beside you?

2. If you could invite one classmate to spend a holiday afternoon with you at your house, whom would you invite?

3. If you were appointed chairman to plan a class party whom would you choose to help you?

4. Whom would you choose as the smartest, brightest classmate?

5. Whom do you think most of your classmates would choose as being the smartest, brightest classmate?

APPENDIX II

May 18, 1961

TO THE TEACHER:

It is planned to use the accompanying sociometric test in some of the grades. It is to be expected that some children will receive many choices, some will receive none, and the remainder will be somewhere in between. You are asked to indicate which three children you think will be most frequently chosen, ranking your estimates as one, two, and three in order. Will you do this before giving the test and seal your estimate in the enclosed envelope. Your judgment concerning the choices you think will be made will be of value to this research.

In administering the test a brief explanation that this is research being conducted in the Sociology Department at the University and that completely honest answers are important and all answers will be kept absolutely confidential, with no one in the class knowing what choices are made, should suffice to introduce the test.

Instruct the children that if a child is absent on this day, he may still be named if desired, and a child may be chosen for more than one thing if desired. One choice in each case is expected; however, if a child wishes to make more, he may do so.

Your assistance in gathering this data is appreciated. It is hoped that results may be of interest to those concerned with education. May I again assure you that identity of information gathered is to be treated as confidential.

Sincerely,

Mrs. Mabelle G. Hardy

APPENDIX III

NAME _____ CLASS (circle one) Fresh. Soph.

LIST THE HIGH SCHOOL CLUBS OR ORGANIZATIONS TO WHICH YOU
BELONG _____

LIST THE HIGH SCHOOL ELECTIVE OFFICES YOU HAVE HELD OR NOW
HOLD (H.R. offices, class offices, student body, club
offices) _____

ARE YOU IN A SCHOOL-SPONSORED SPORT? _____ WHAT? _____